

SPECIFICATION AMENDMENTS:

Please amend the specification as indicated:

Please replace paragraph [0028] with the following amended paragraph:

[0028] In the following description, specific details are given to provide a thorough understanding of the embodiments. However, it will be understood by one of ordinary skill in the art that the embodiments may be practiced without these specific ~~detail~~ details. For example, circuits may be shown in block diagrams in order not to obscure the embodiments in unnecessary detail. In other instances, well-known circuits, structures and techniques may be shown in detail in order not to obscure the embodiments.

Please replace paragraph [0042] with the following amended paragraph:

[0042] Referring back to FIG. 2, processor 250 can therefore determine whether deblocking is necessary. As discussed above, processor 250 can also select, as the system allows, different deblocking filters depending on the characteristics of the neighboring blocks. Thus, the deblocking ~~deblocking~~ filter module 240 may include ~~comprise~~ one or more types of filters such as, but not limited to, an averaging filter and/or Gaussian filter.

Please replace paragraph [0043] with the following amended paragraph:

[0043] Furthermore, as discussed above, VBSDCT module 110 may be implemented by ABSDCT. Compression techniques using ABSDCT will next be described using a block size of 16x16 pixels. Generally, each of the luminance and chrominance components is passed to a block interleaver (not shown). In one embodiment ~~ass~~, as shown in FIGS. 8A to 8D, a 16x16 block is presented to the block interleaver, which orders the image samples within the 16x16 blocks to produce blocks and composite sub-blocks of data for DCT analysis. One 16x16 DCT is applied to a first ordering, four 8x8 DCTs are applied to a second ordering, 16 4x4 DCTs are applied to a third ordering, and 64 2x2 DCTs are applied to a fourth ordering. The DCT operation reduces the spatial redundancy inherent in the image source. After the DCT is performed, most of the image signal energy tends to be concentrated in a few DCT coefficients.

Please replace paragraph [0049] with the following amended paragraph:

[0049] FIG. 11 illustrates an example process 1100 for generating the PQR information for a 16x16 block is shown. For each block, the mean value and variance V16 is obtained (1110). The variance V16 is compared with the appropriate threshold T16 for the corresponding mean value (1115). If the variance V16 is not greater than threshold T16, the R value of the PQR data is set to 0 and the process ends (1120). Otherwise, the R value is set to 1 (1125). The variance V8(i), {i=1 to 4} is then obtained for each of the four 8x8 subblocks 0 to 3 as shown in FIG. 9B and each variance V8(i) is compared with the appropriate threshold T16 to determine the Q values for the PQR data (1130 to 1140). If a variance V8(i) is not greater than threshold T8, the corresponding Q(i) is set to 0 (1145). Otherwise, the Q(i) value is set to 1 (1150). The variance V4(j), {j=1 to 4} is then obtained for each of the four 4x4 subblocks of each 8x8 block for which Q(i) is set to 1 and each variance V4(j) is compared with the appropriate threshold T4 to determine the P values for the PQR data (1155 to 1165). If a variance V4(j) is not greater than threshold T4, the corresponding Q(j) is set to 0 (1170). Otherwise, the Q(j) value is set to 1 (1175).

Please replace paragraph [0051] with the following amended paragraph:

[0051] When determining whether deblocking filter is to be used for two neighboring blocks, the PQR information is obtained for each block (1410). If ~~both the PQR information for the two neighboring blocks is~~ bits are greater than 5 bits in length (1415), the process ends. Namely, both blocks are determined to be subdivided and deemed to contain sufficient edge information. Otherwise, if ~~one of the PQR information for one of the neighboring blocks~~ bits is greater than 5 bits in length, a two point averaging filter is used on {x1, y1} (1420 and 1425). If ~~neither of the PQR information for the two neighboring blocks is~~ not bits is greater than 5 bits in length, then difference values d1, d2 and d3 are obtained (1430). If d1, d2 and d3 are greater than threshold TD, then a 6 point Gaussian filter is used on {x1, x2, x3, y1, y2, y3} (1435 and 1440). If d1 and d2 are greater than threshold TD, then a 4 point Gaussian filter is used on {x1, x2, y1, y2} (1445 and 1450). If d1 is greater than threshold TD, then a two point averaging filter is used on {x1, y1} (1455 and 1460).